

N^o 18,419



A.D. 1900

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COMPLETE SPECIFICATION.

Improvements in Massage and Ear Instruments.

I, BENJAMIN FRANKLIN HUTCHES, Jr., of No. 165, West 78th Street, New York City, County and State of New York, United States of America, Mechanic, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to a massage instrument adapted to be moved by hand over the parts of the face or body requiring massage treatment. The instrument is provided with a rapidly vibrating hammer which delivers a series of rapid taps upon the skin, and with a guard which is held against the skin and serves to locate and equalize the taps.

In the accompanying drawing:—

Fig. 1 is a top view, partly in section, of my improved massage instrument, showing the casing open.

Fig. 2 is a longitudinal section on line 2, 2, Fig. 1.

Fig. 3 illustrates a modification of the guard and hammer.

Fig. 4 is an elevation, partly in section, of the instrument, showing it connected to the piston of an ear pump, and

Fig. 5 is a section on line 5, 5, Fig. 4.

The letter *a*, represents a casing which contains the operating mechanism of the instrument, and from which projects the rapidly vibrating hammer *b*. This hammer may be of any desired shape, and is preferably removable, so that hammers of different shapes adapted to give different treatments to the body may be fitted to the instrument. In Figure 1, I have shown the hammer provided with a flat end as at *c*, to constitute a paddle, while in Figure 3, it is provided with a ball *d*.

In order to guide the instrument over the body at a uniform distance and to thus locate and equalize the hammer-blows, I employ a guard *e*, which projects from the casing *a*, some distance below the hammer (Fig. 2) and surrounds the same when the latter is depressed. Thus, by holding the guard *e*, in contact with the body and drawing the instrument slowly over the surface to be treated, all the taps of the hammer will be located and a uniform treatment will be ensured to the patient.

The guard is also, preferably, removable as shown, so that guards of various configurations may be employed. In Figure 1, the guard is shown to be of U-form, and in Figure 3, it is shown to be first partly contracted and then expanded into a ring. It is obvious that the shape of the guard is subject to infinite variations.

In order to impart a rapid reciprocating movement to the hammer, I may employ either a mechanical or an electric motor, the drawing showing the latter construction, which is preferred. Here the hammer *b*, is secured to the armature *f*, of a pair of electro-magnets *g*. The armature is free to vibrate on the pivot *h*, and is provided with a retracting spring *i*. The wires *k*, and *l*, leading

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Hutches's Improvements in Massage and Ear Instruments.

from a dry battery or other source of electricity to posts *m*, *n*, cause the vibration of the armature in the well known manner, and consequently a corresponding vibration of the hammer. By turning on the current, more or less, the force of the hammer-taps may be readily regulated.

In Figures 4 and 5, the invention is shown to be applied for operating an ear pump *p*, which may be either a force or a suction pump. The casing of the pump is provided with eyes *r*, that are slipped over the two disconnected shanks of the guard *e*, while the plunger *s*, of the pump has an eye *t*, which is engaged by the hammer *b*. 5

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:— 10

1. In a massage instrument, a vibrating hammer, a surrounding guard, and a casing that contains the mechanism for vibrating the hammer, substantially as specified. 15

2. In a massage instrument, a vibrating hammer, a surrounding guard, a casing, and an electric motor within the casing for vibrating the hammer, substantially as specified.

3. In a massage instrument, a vibrating hammer, a surrounding guard, a casing, enclosed electro-magnets, and a spring-influenced armature to which the hammer is attached, substantially as specified. 20

4. In a massage instrument, a removable vibrating hammer, a surrounding removable guard, and a casing that contains the mechanism for vibrating the hammer, substantially as specified.

5. A massage instrument of the character described, combined with a pump which is secured to the guard and operated by the hammer of such instrument, substantially as specified. 25

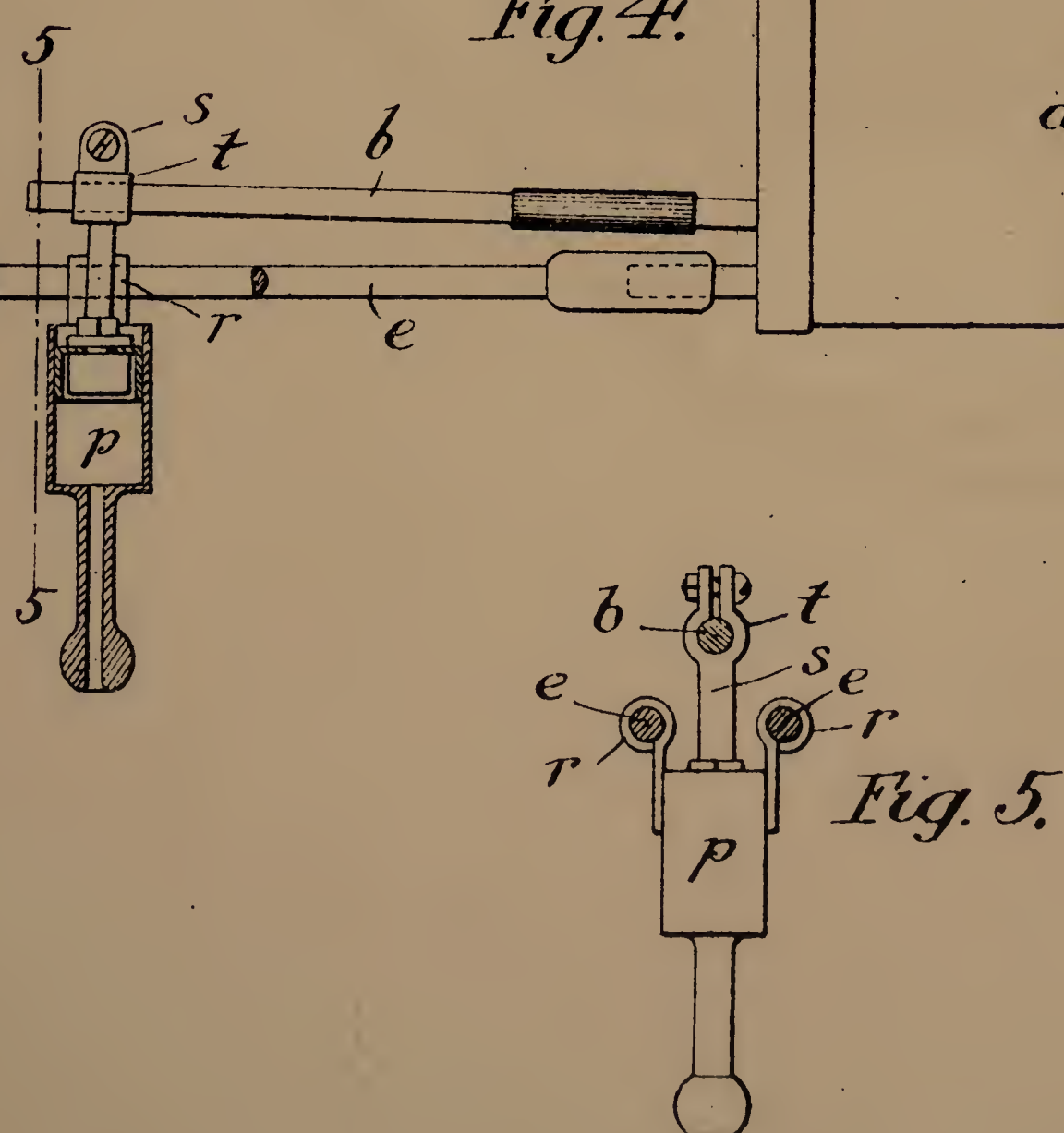
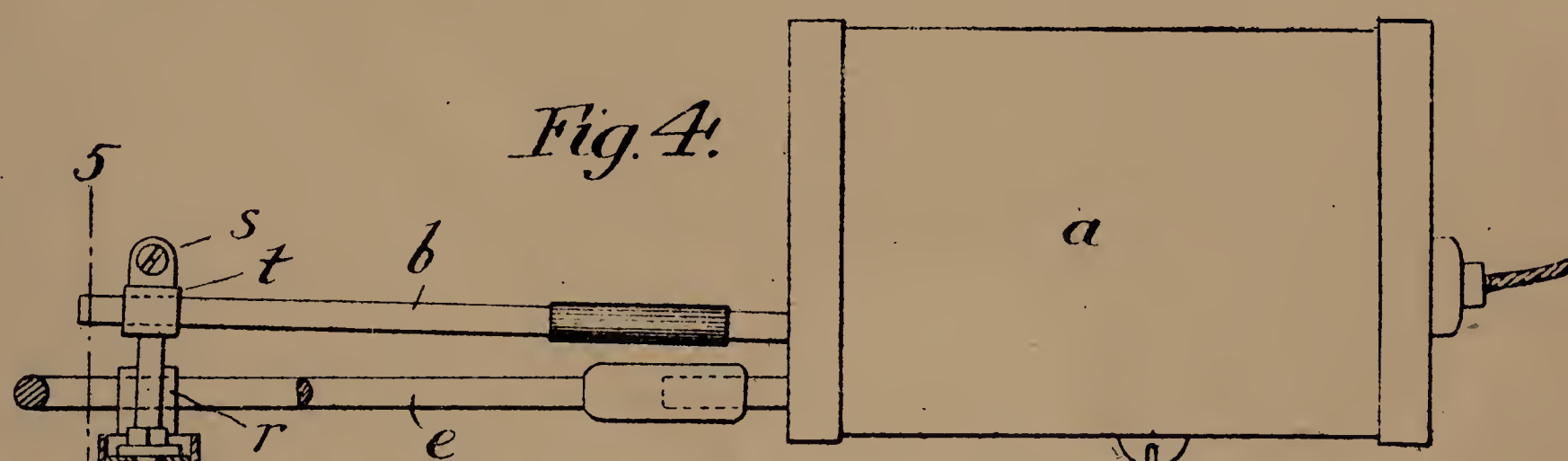
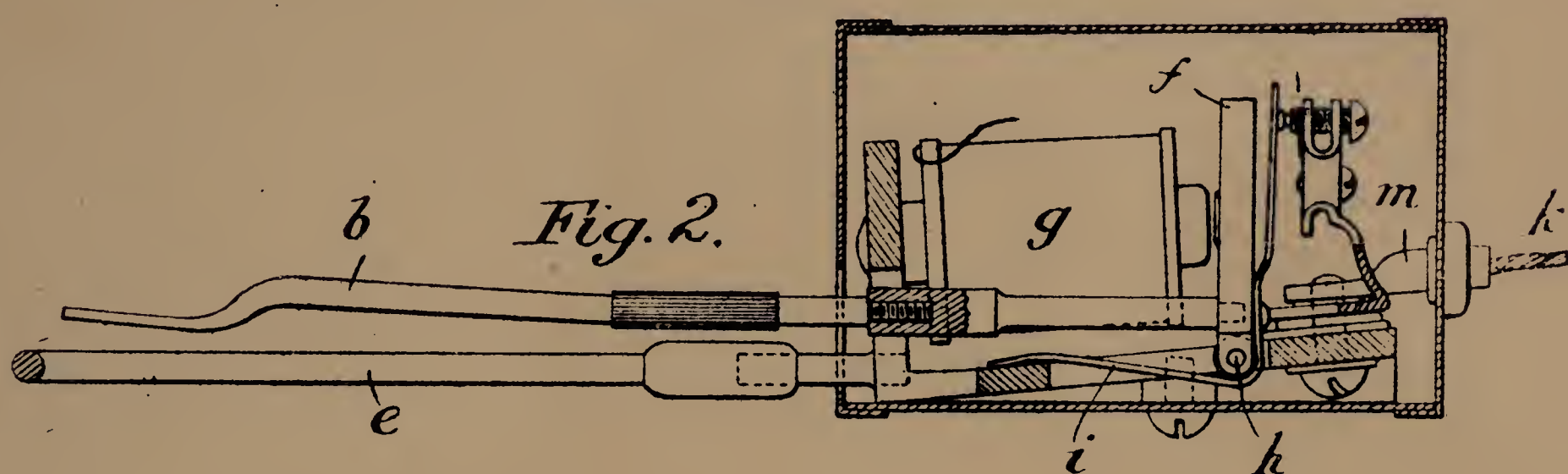
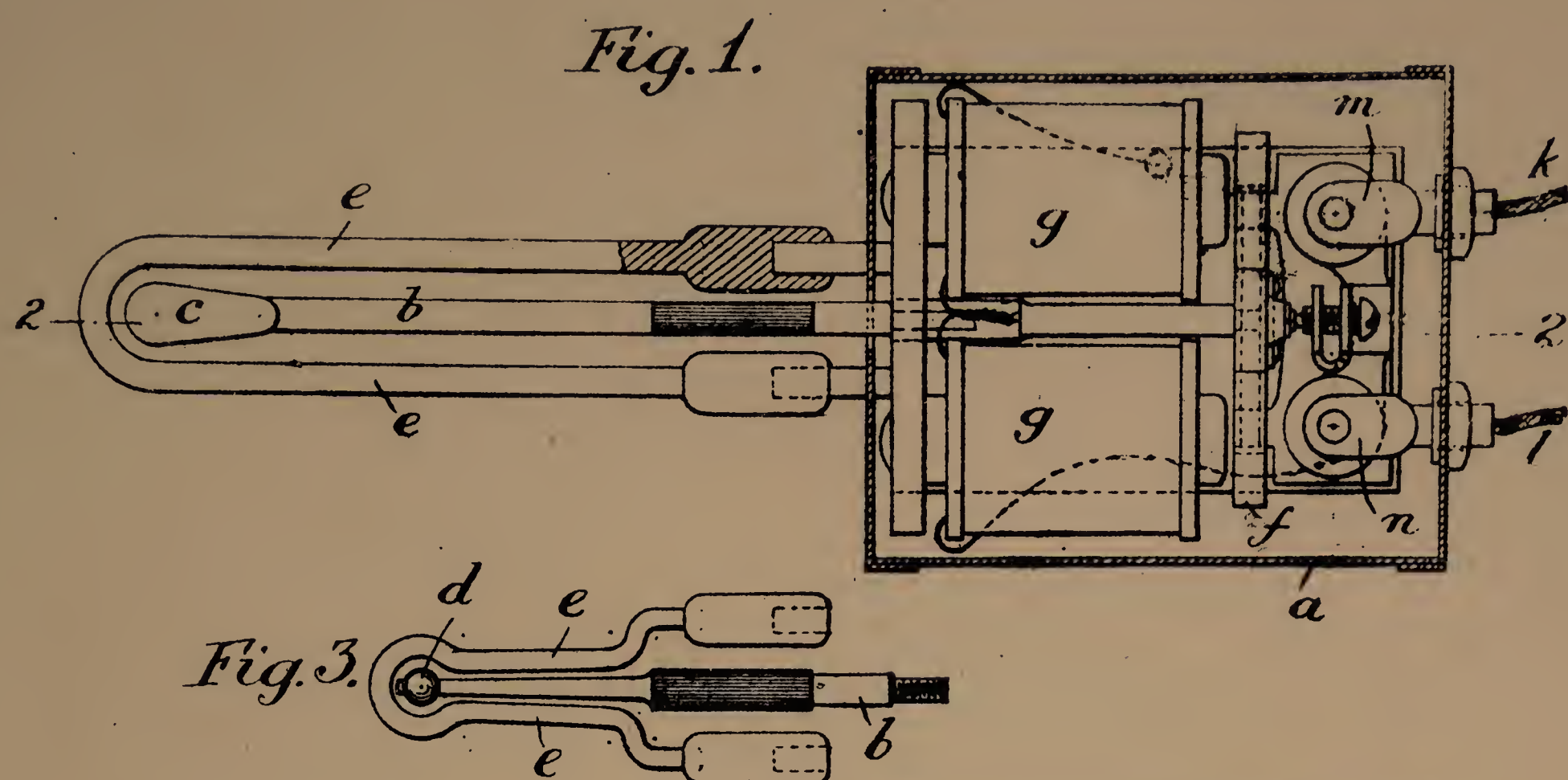
6. A massage instrument constructed, substantially, as herein shown and described.

Dated this 16th day of October 1900.

ALLISON BROS.,
Agents for the Applicant.

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[This Drawing is a reproduction of the Original on a reduced scale.]

